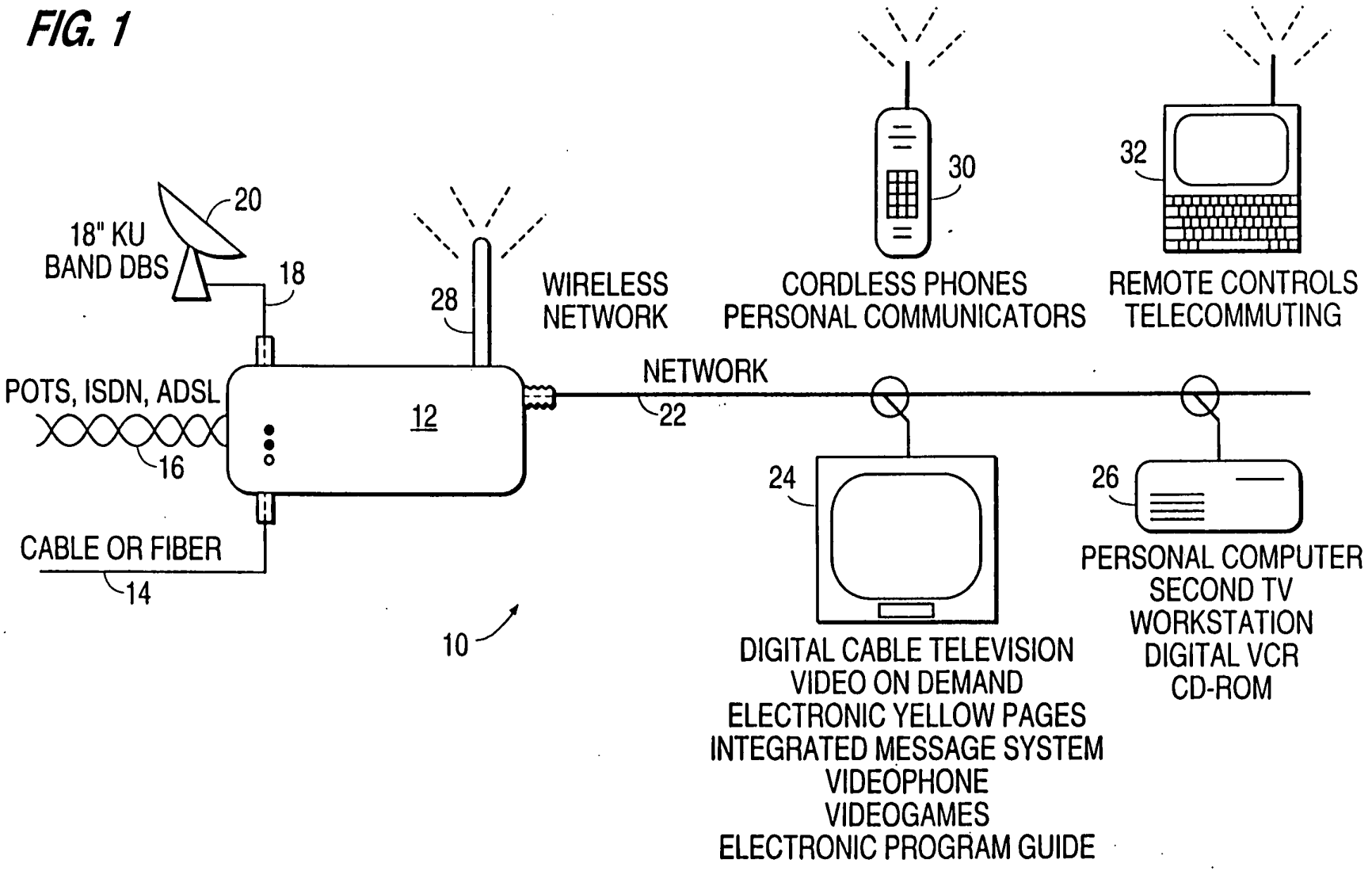
FIG. 1


20
18" KU
BAND DBS
18
28
WIRELESS
NETWORK
30
CORDLESS PHONES
PERSONAL COMMUNICATORS
32
REMOTE CONTROLS
TELECOMMUTING
POTS, ISDN, ADSL
16
12
NETWORK
22
24
26
CABLE OR FIBER
14
10
DIGITAL CABLE TELEVISION
VIDEO ON DEMAND
ELECTRONIC YELLOW PAGES
INTEGRATED MESSAGE SYSTEM
VIDEOPHONE
VIDEOGAMES
ELECTRONIC PROGRAM GUIDE
PERSONAL COMPUTER
SECOND TV
WORKSTATION
DIGITAL VCR
CD-ROM

APPROVED BY DRAFTSMAN | U.S. FIG. | CLASS | SUBCLASS

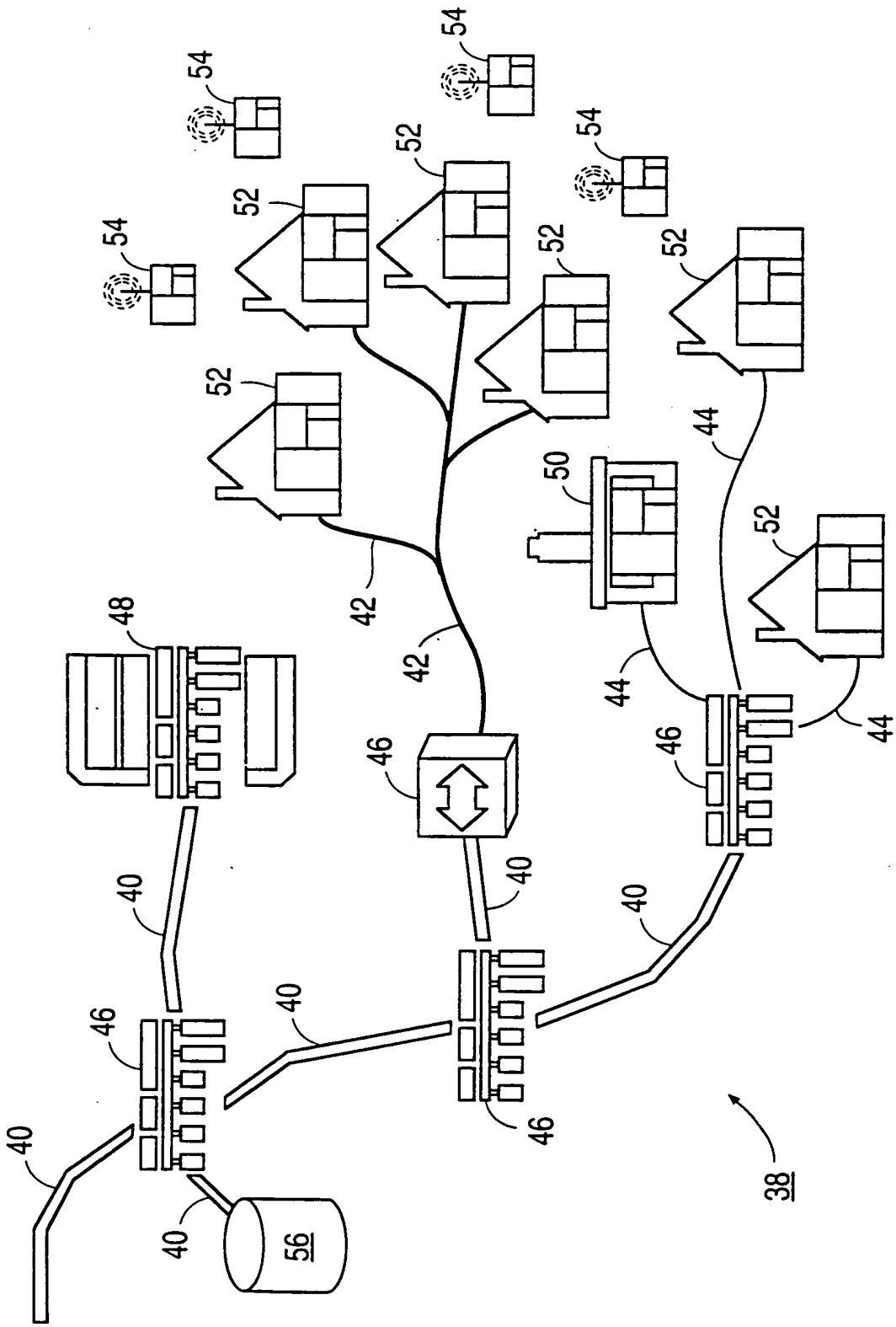
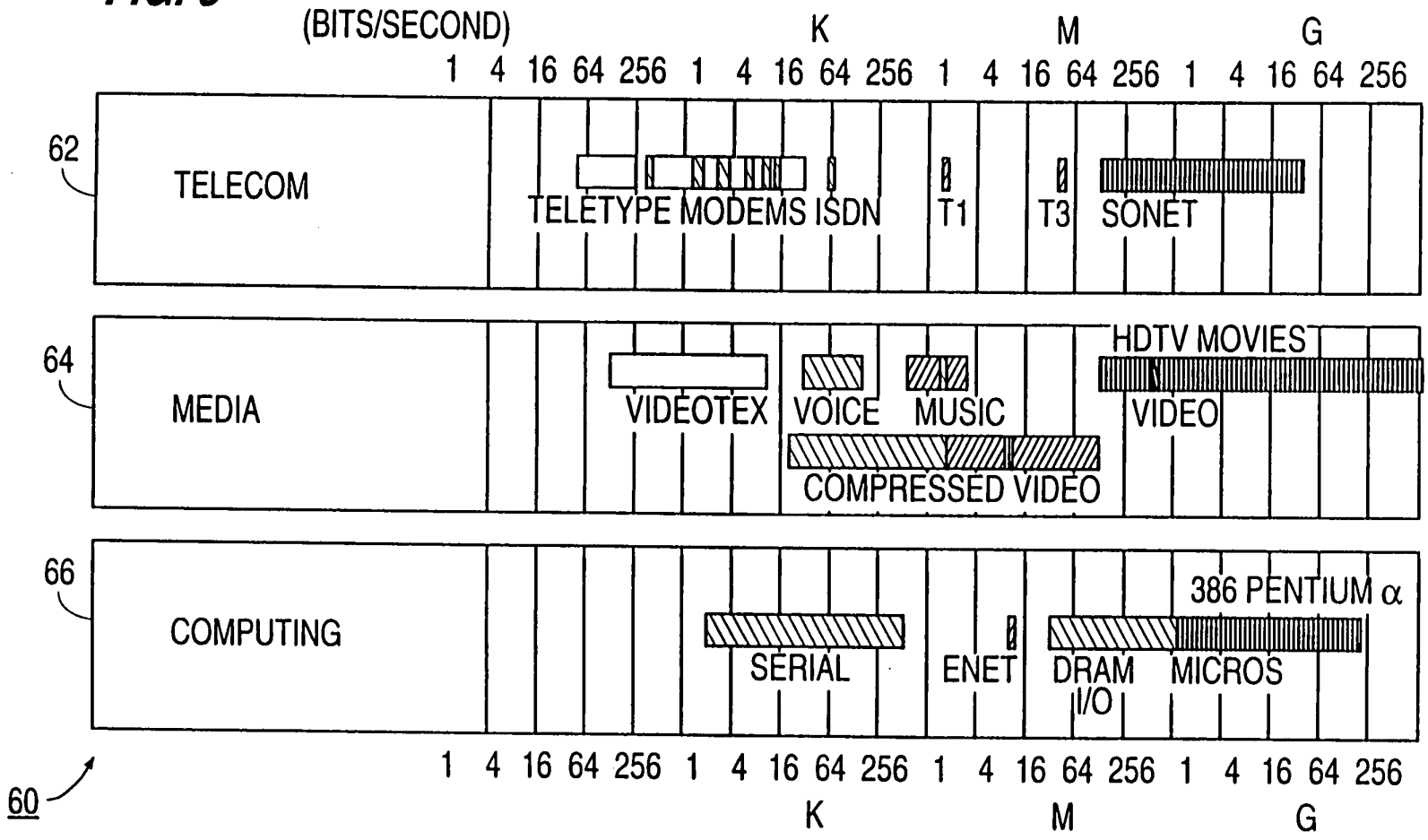


FIG. 2

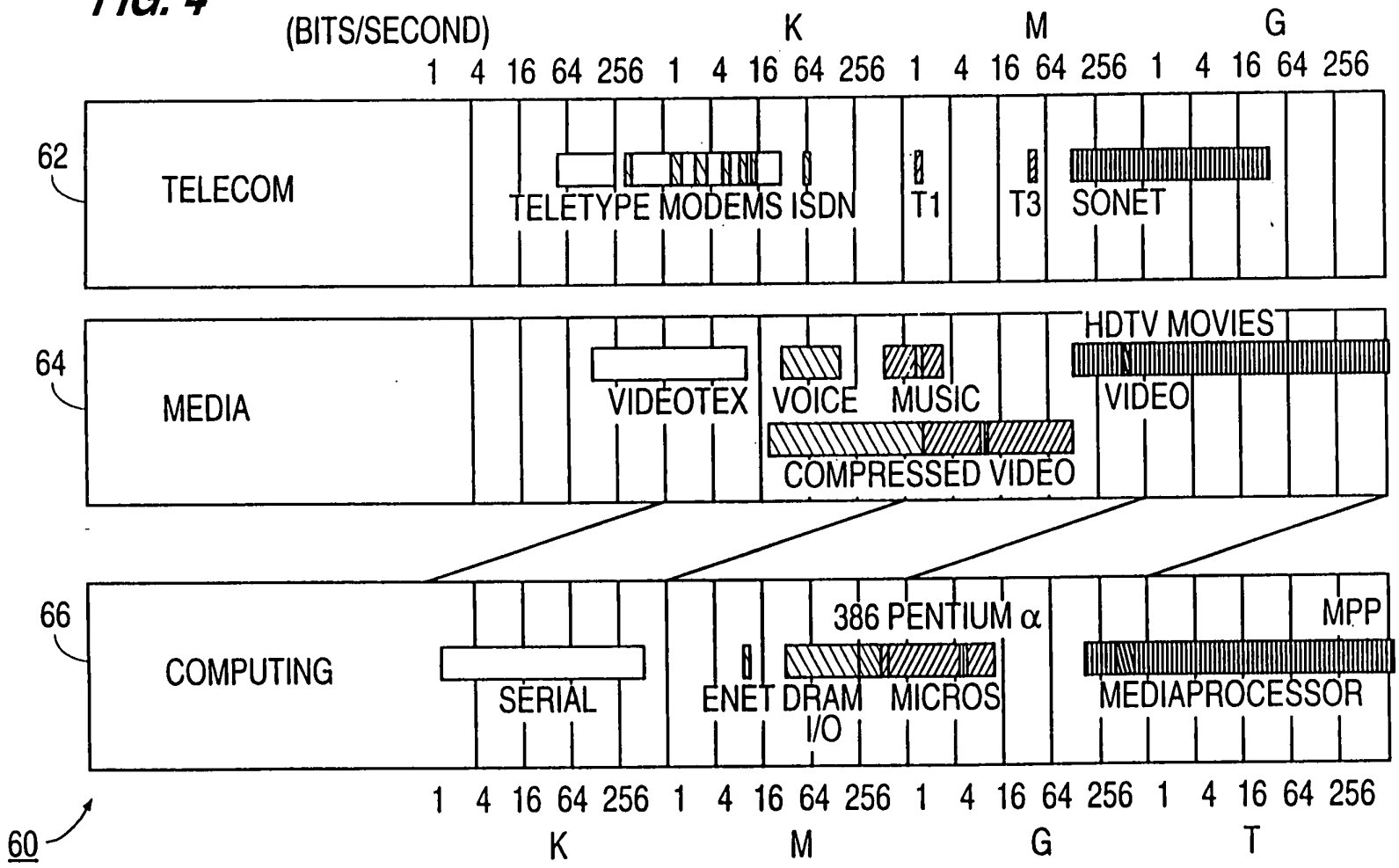
APPROVED O.G. FIG.
BY
DRAFTSMAN
CLASS SUBCLASS

FIG. 3



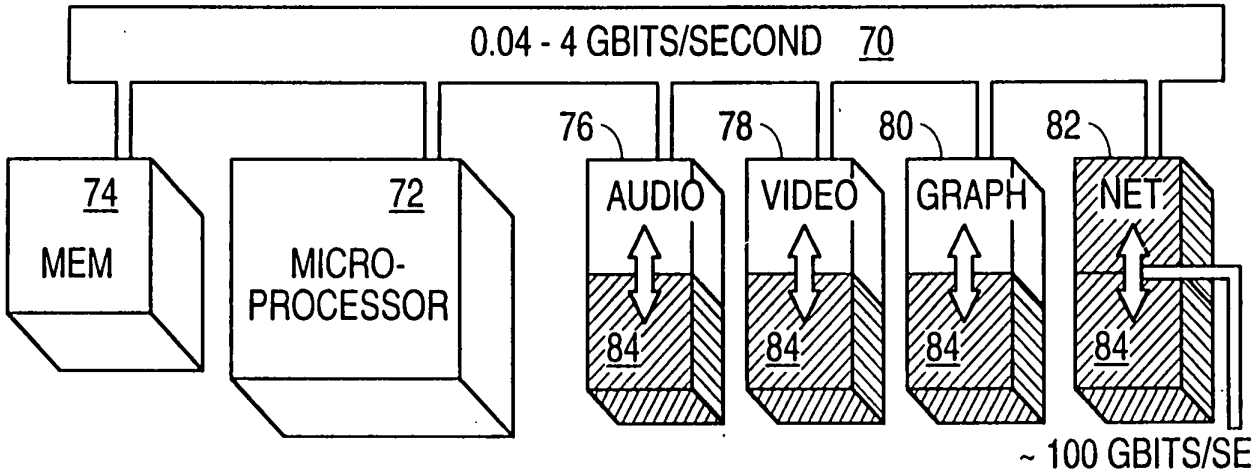
APPROVED O.G. FIG.
BY
CLASS SUBCLASS
DRAFTSMAN

FIG. 4

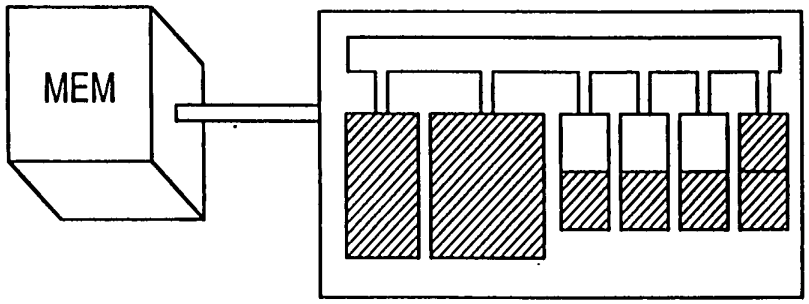


APPROVED
BY
DRAFTSMAN
O.G. FIG.
CLASS
SUBCLASS

FIG. 5



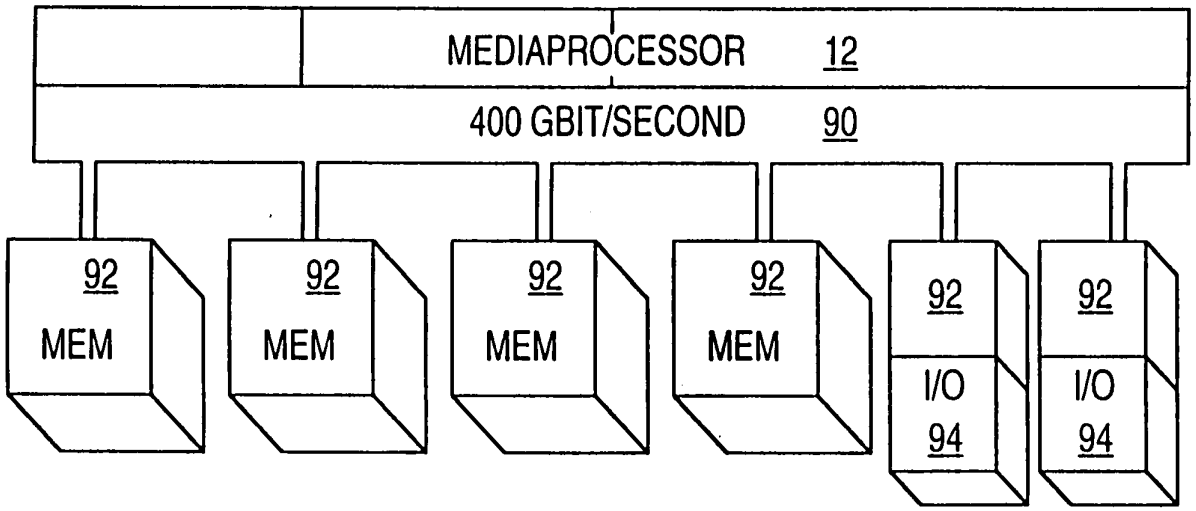
THE FUTURE OF THE OLD WAY (1999)



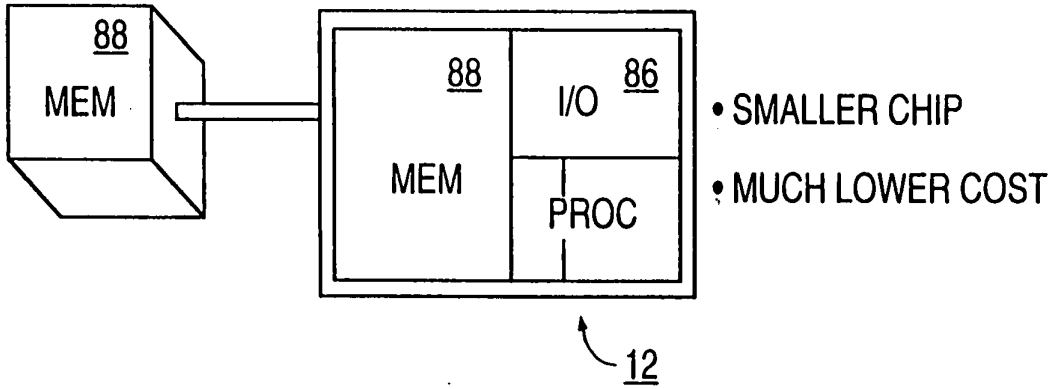
- SINGLE CHIP
- LOWER COST

APPROVED
O.G. FIG.
BY
CLASS
SUBCLASS
DRAFTSMAN

FIG. 6



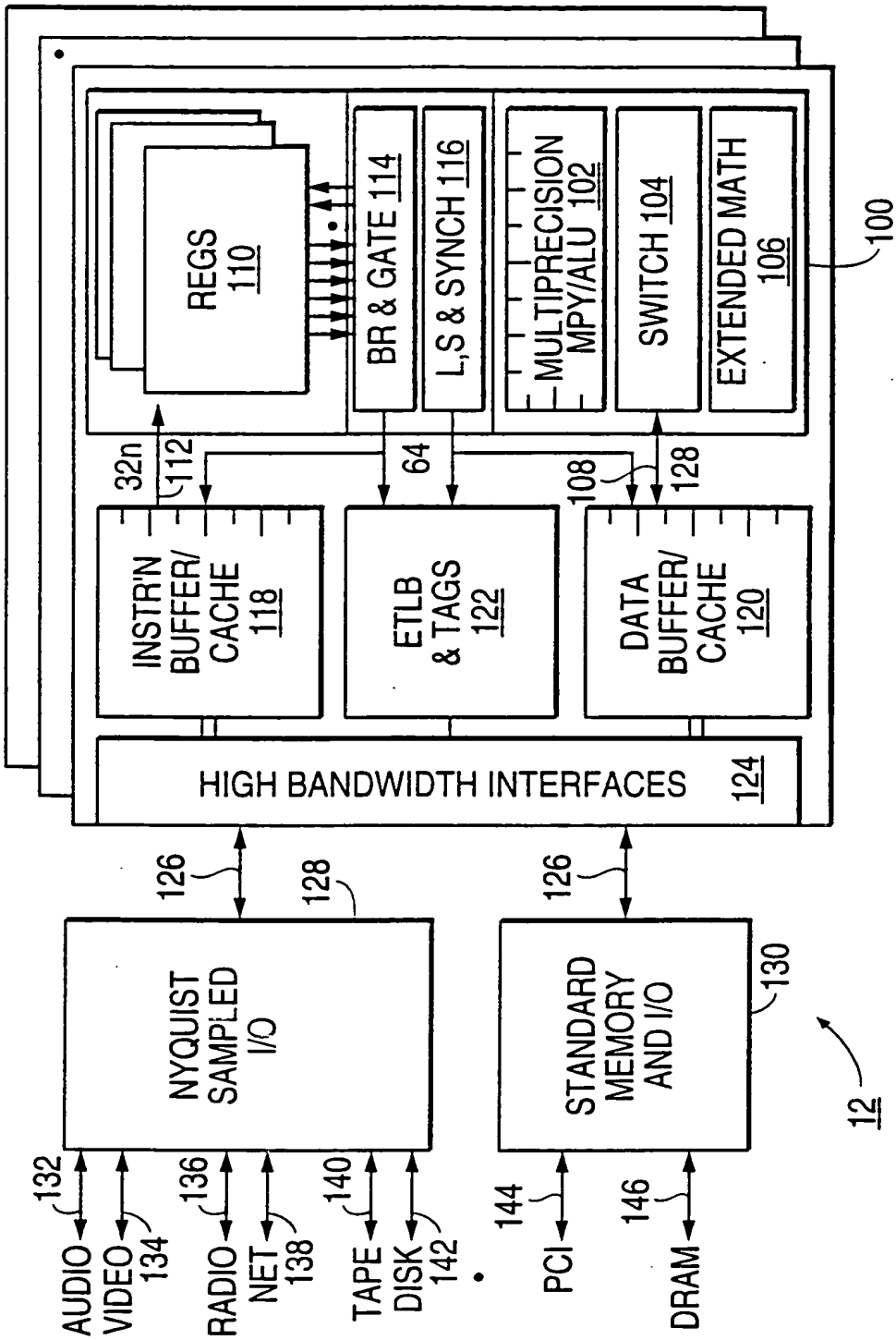
THE FUTURE OF THE UNIFIED WAY (1995)



- SMALLER CHIP
- MUCH LOWER COST

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 7



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 8(a)

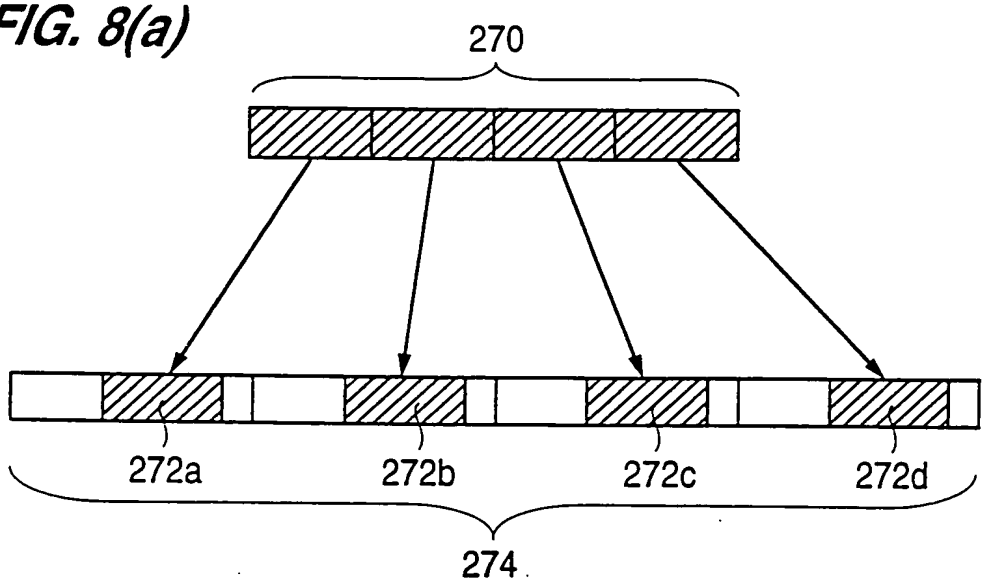
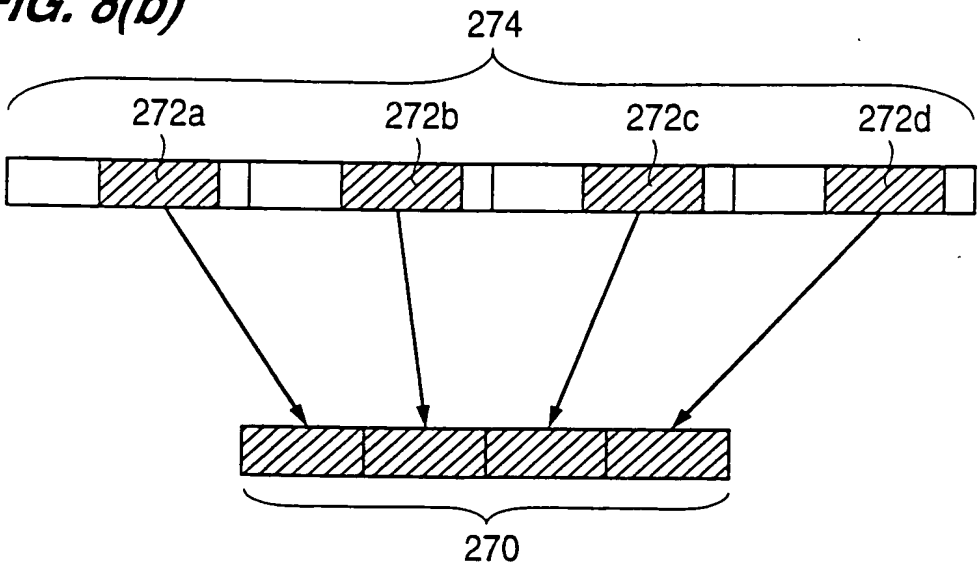


FIG. 8(b)



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 8(c)

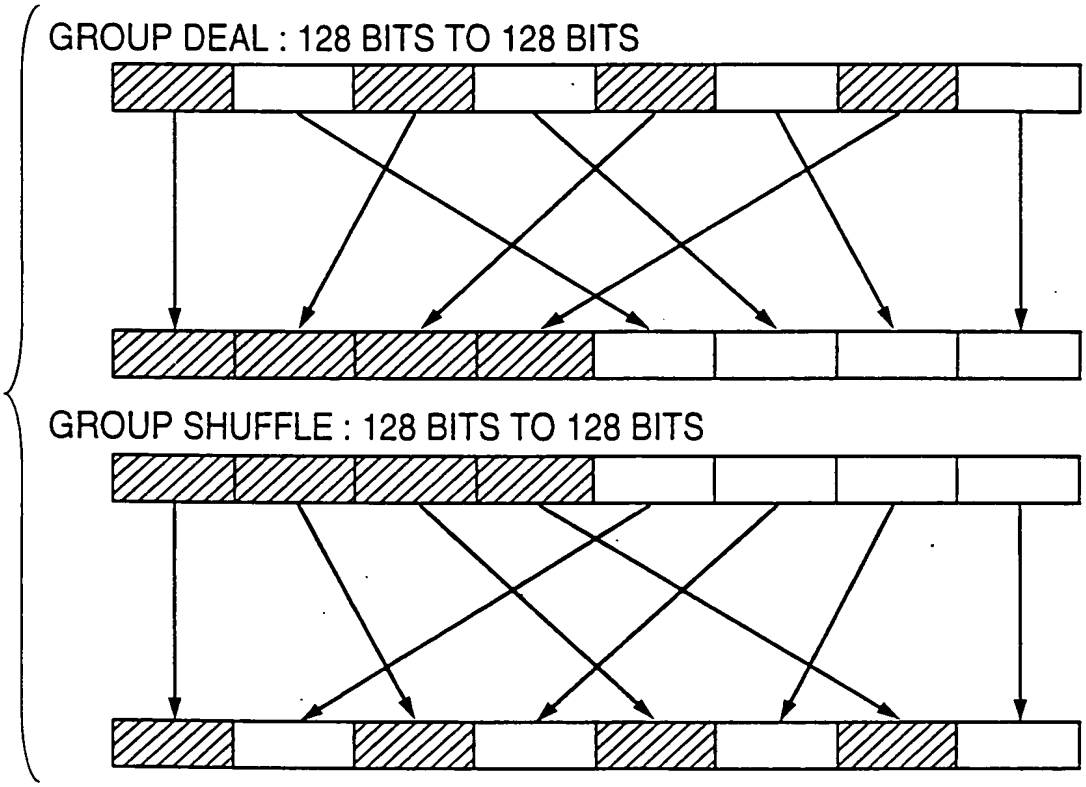
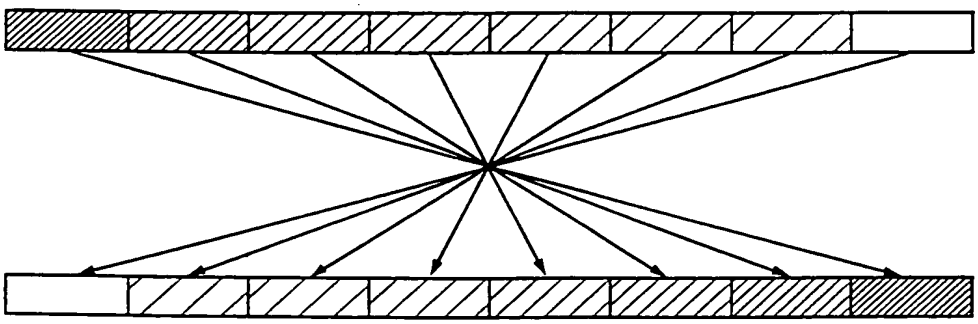
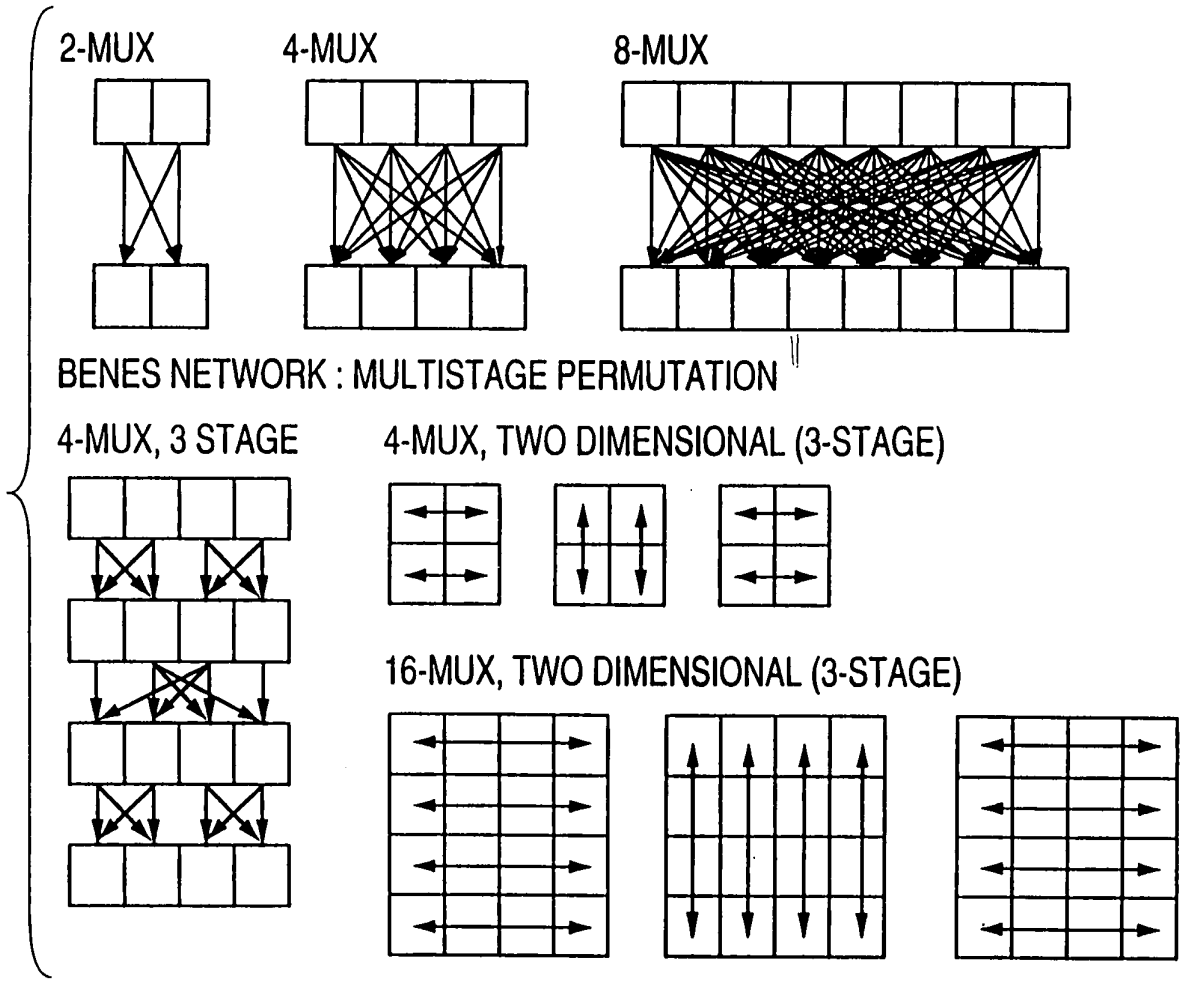


FIG. 8(d)



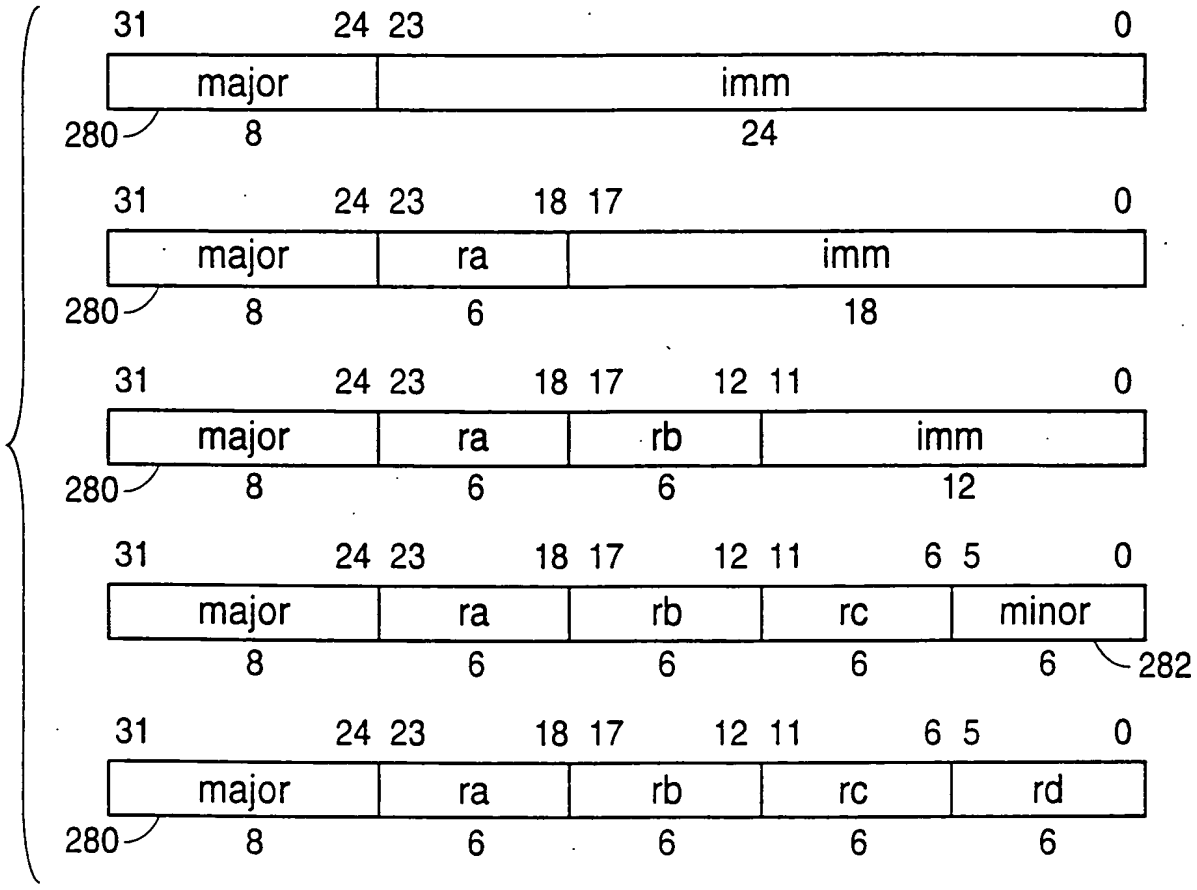
APPROVED
BY
DRAFTSMAN
O.G. FIG.
CLASS
SUBCLASS

FIG. 8(e)



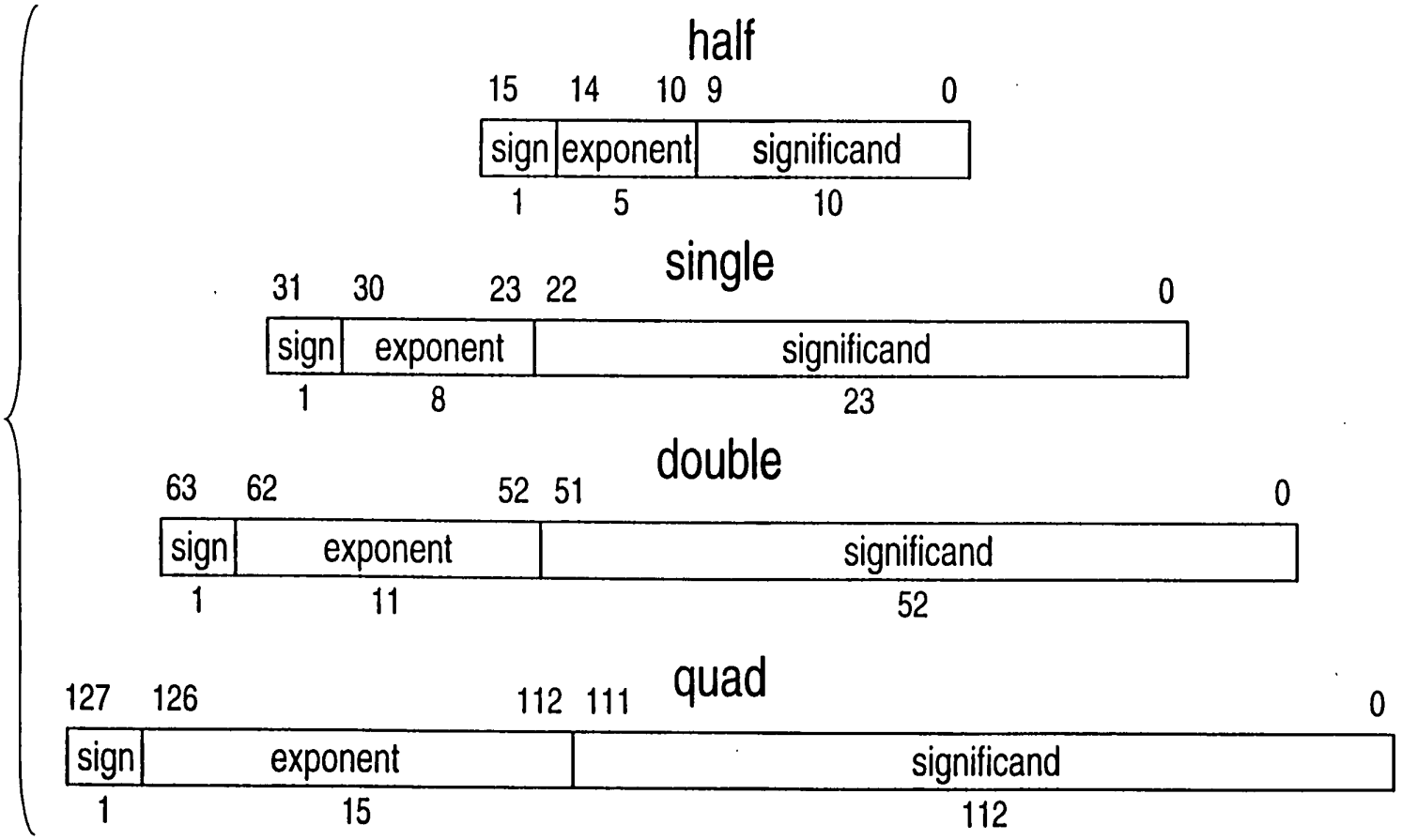
APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 9(a)



APPROVED O.G. FIG.
BY
DRAFTSMAN
CLASS SUBCLASS

FIG. 9(b)



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

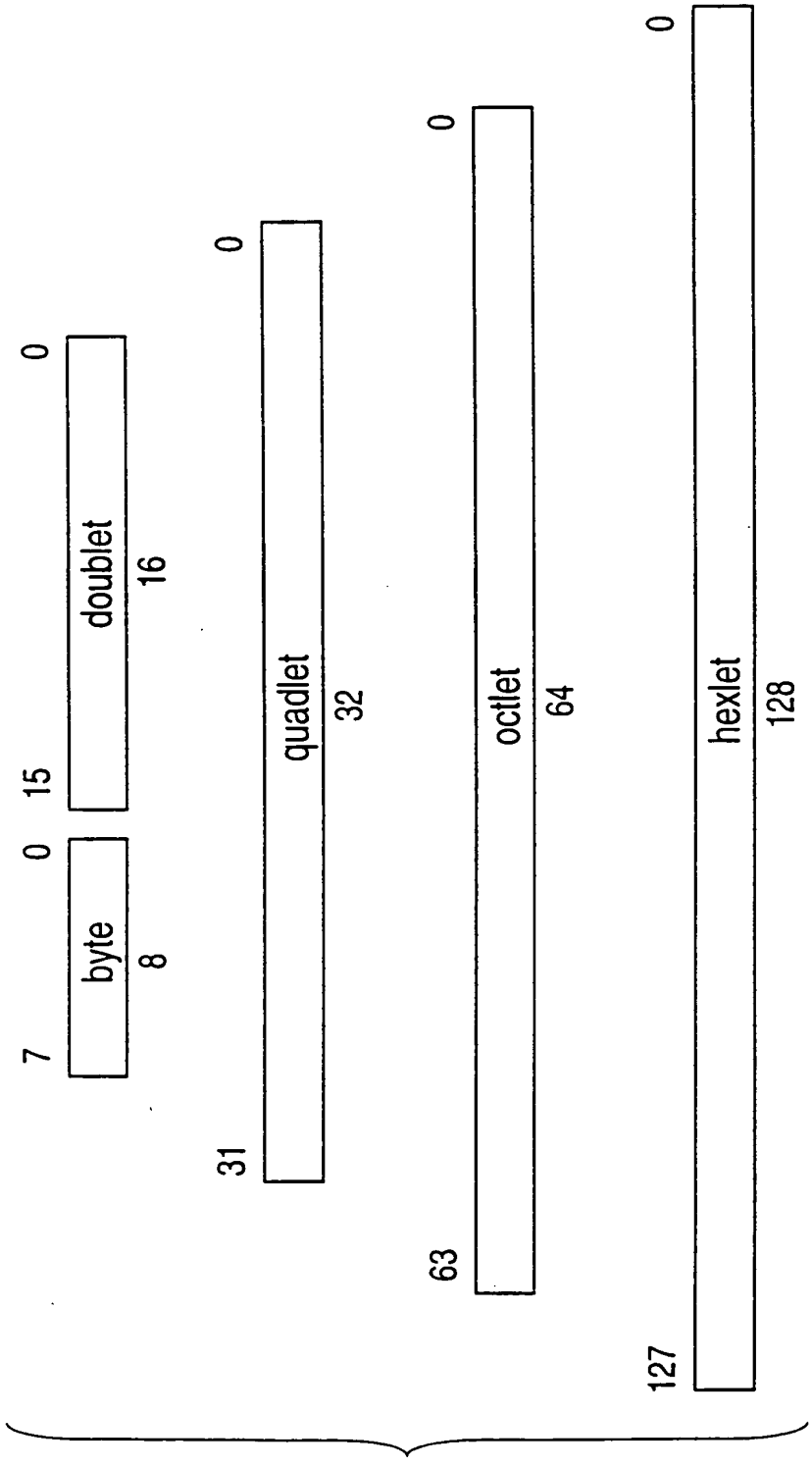
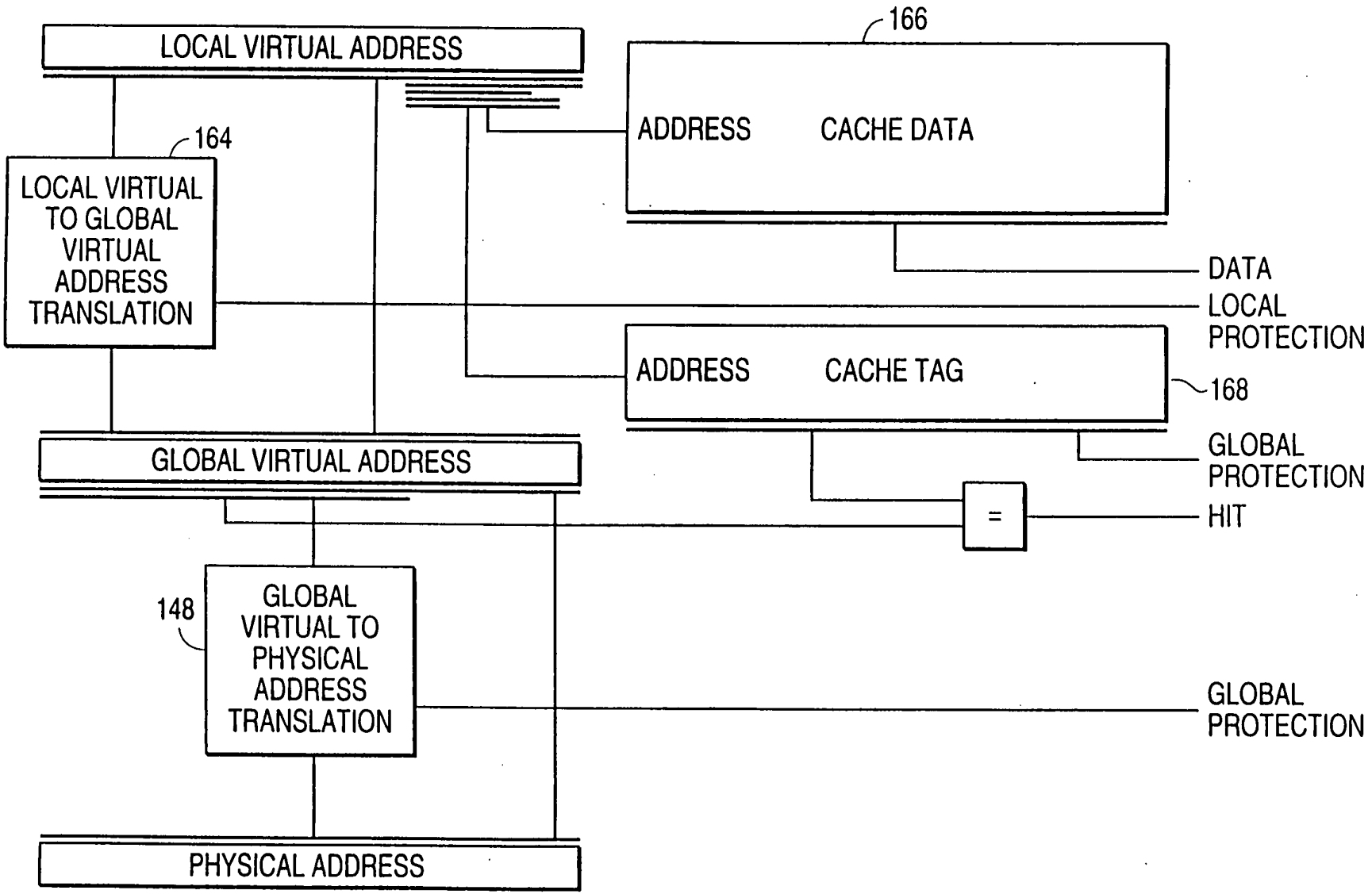


FIG. 9(c)

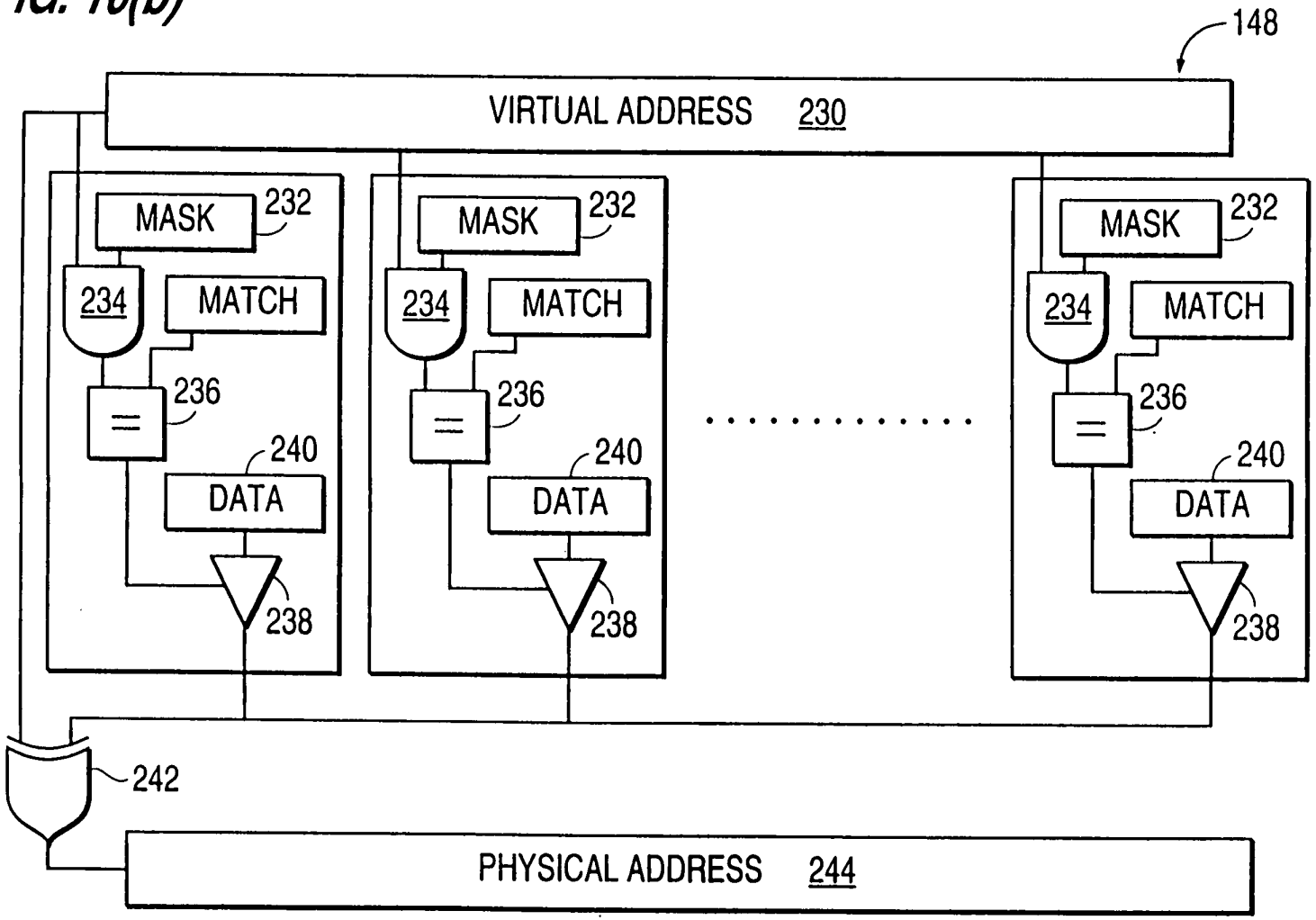
APPROVED O.G. FIG.
BY
DRAFTSMAN
CLASS SUBCLASS

FIG. 10(a)



APPROVED O.G. FIG.
BY
CLASS SUBCLASS
DRAFTSMAN

FIG. 10(b)



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

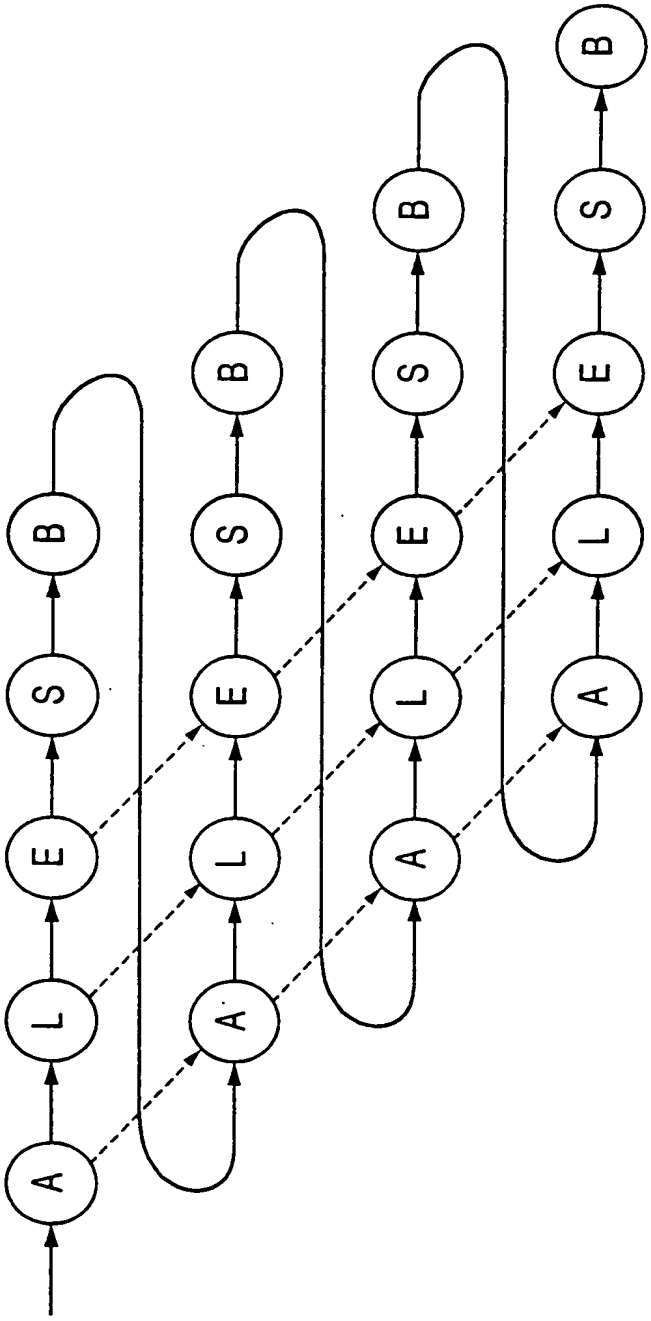


FIG. 11

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

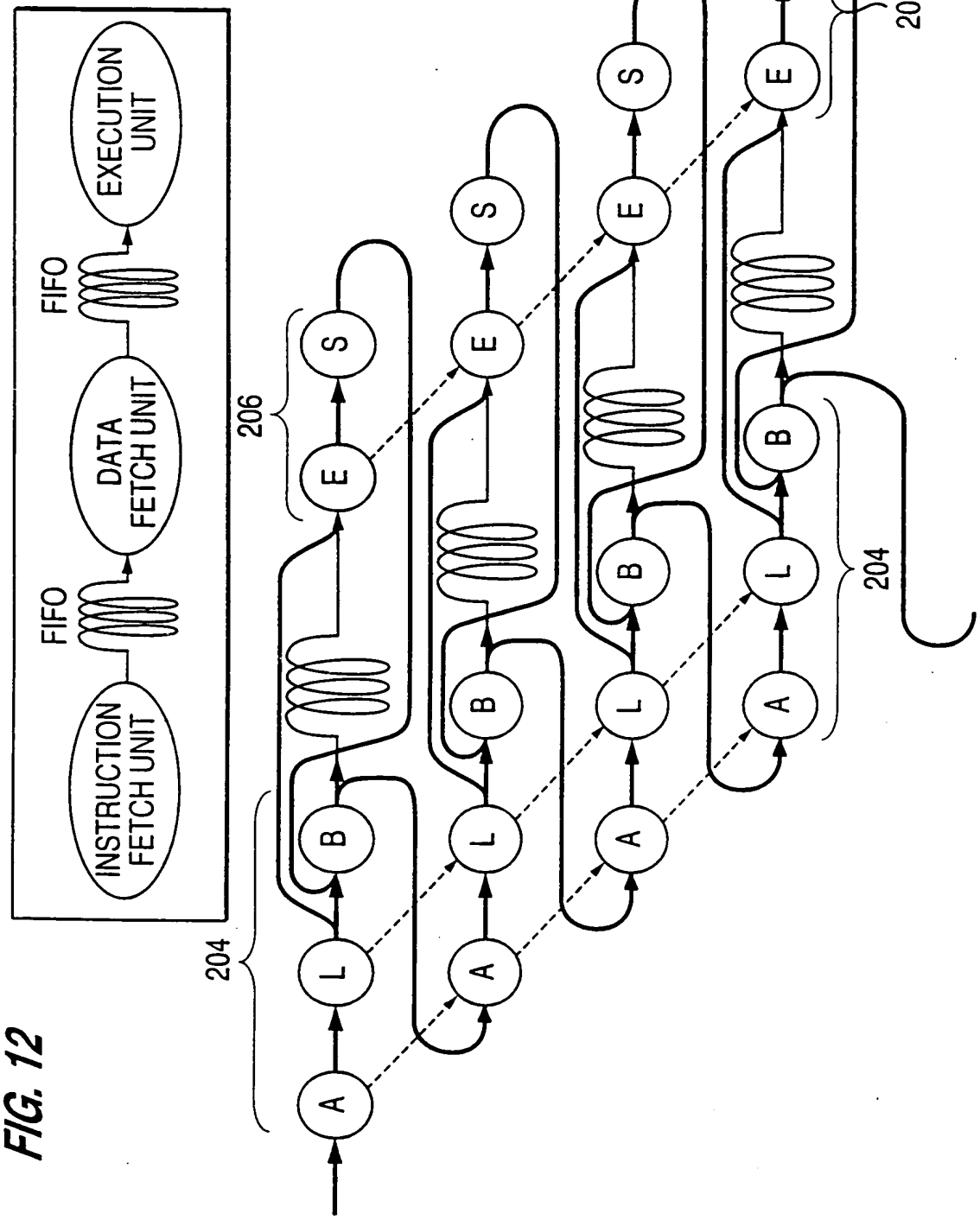


FIG. 12

APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

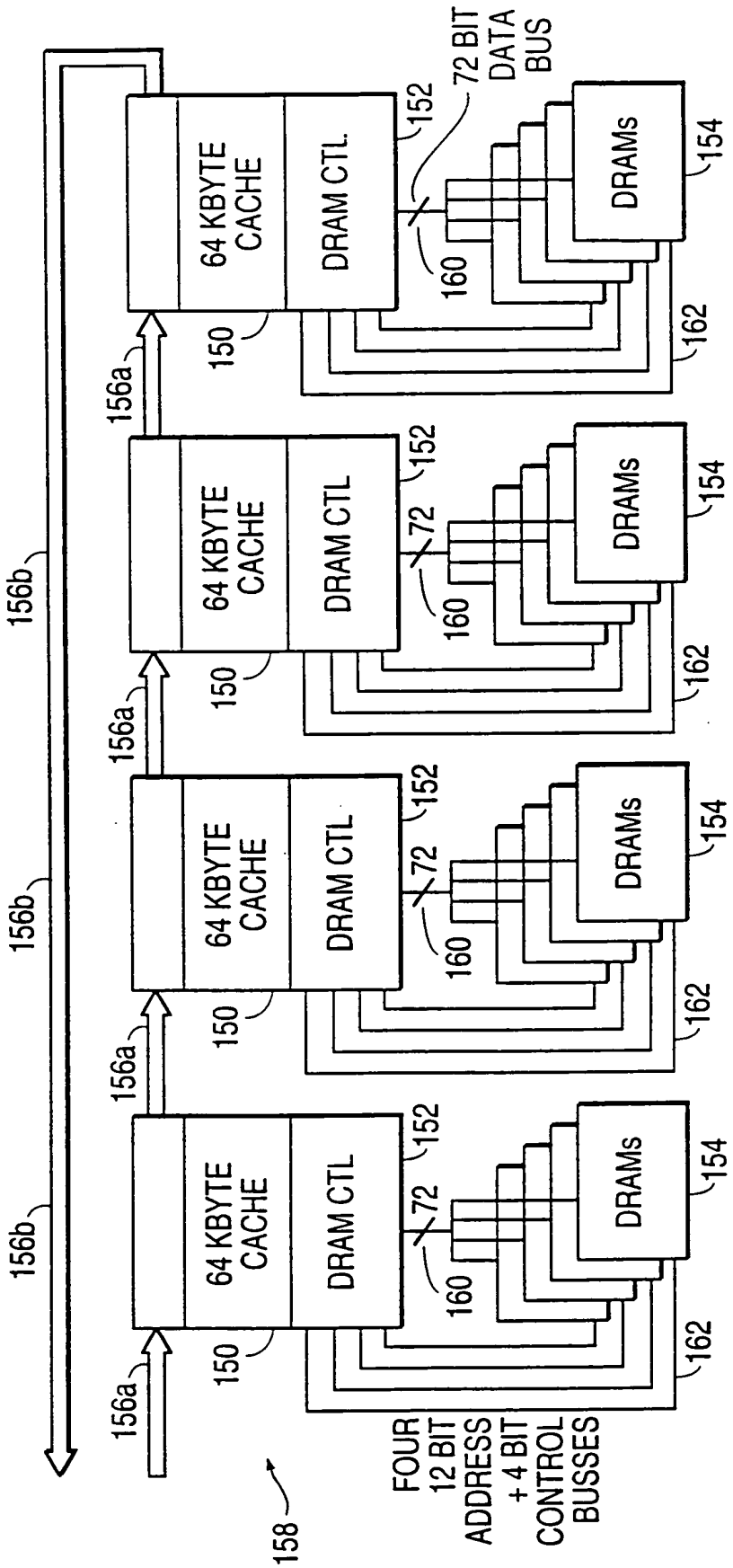
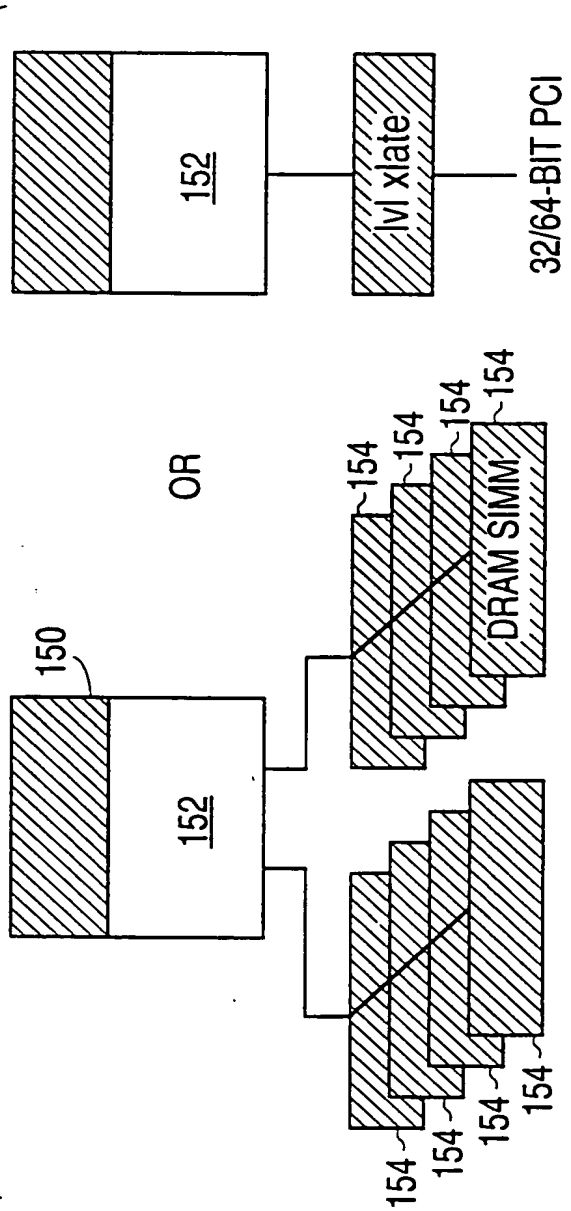


FIG. 13

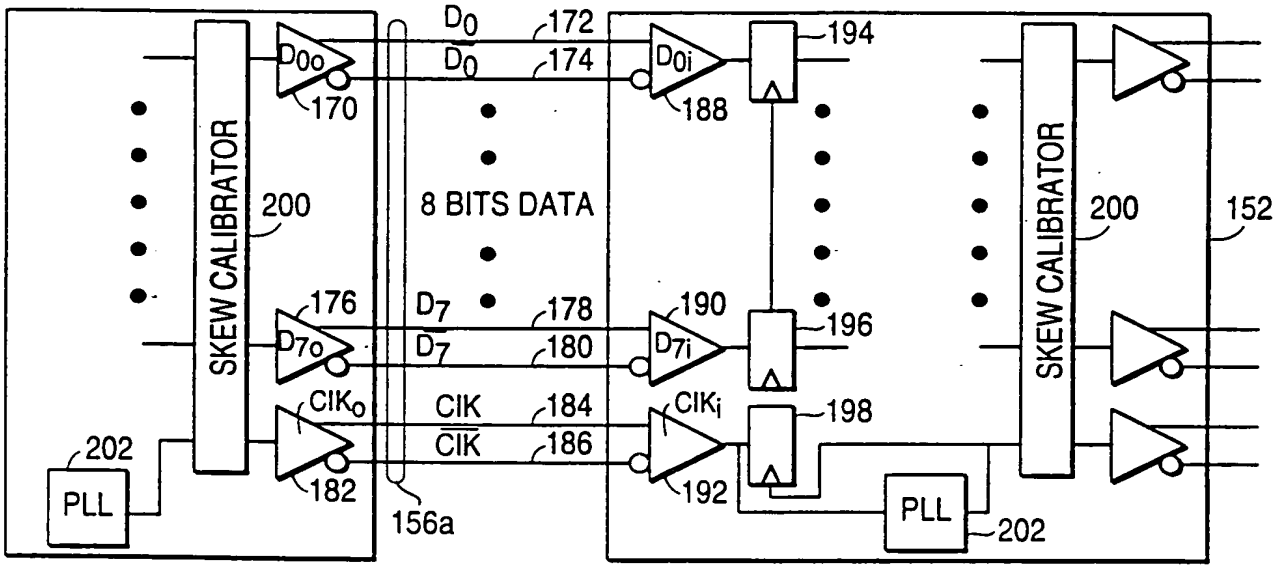
APPROVED BY DRAFTSMAN
O.G. FIG.
CLASS SUBCLASS

FIG. 14



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

FIG. 15



APPROVED BY DRAFTSMAN | O.G. FIG. | CLASS | SUBCLASS

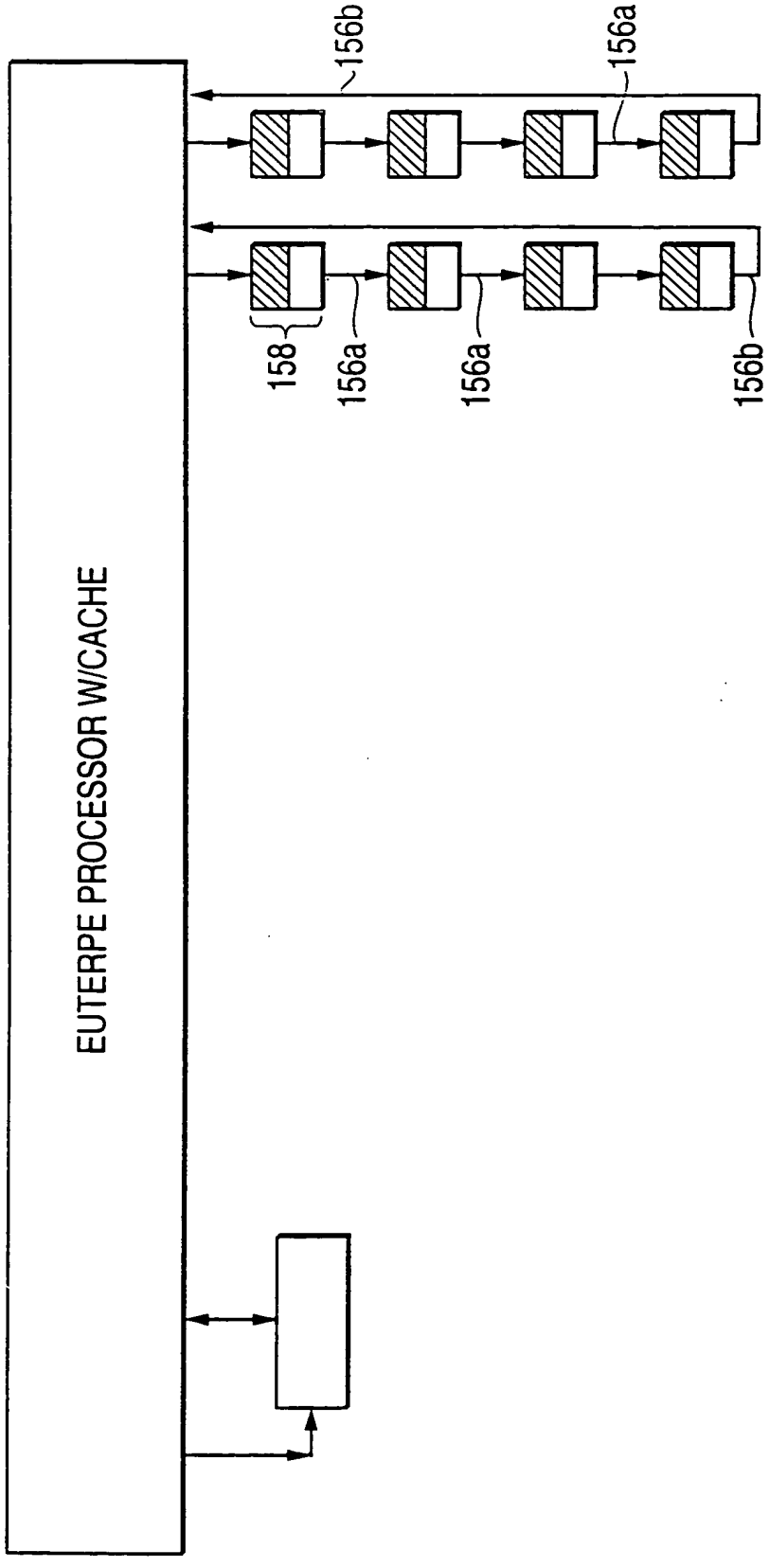
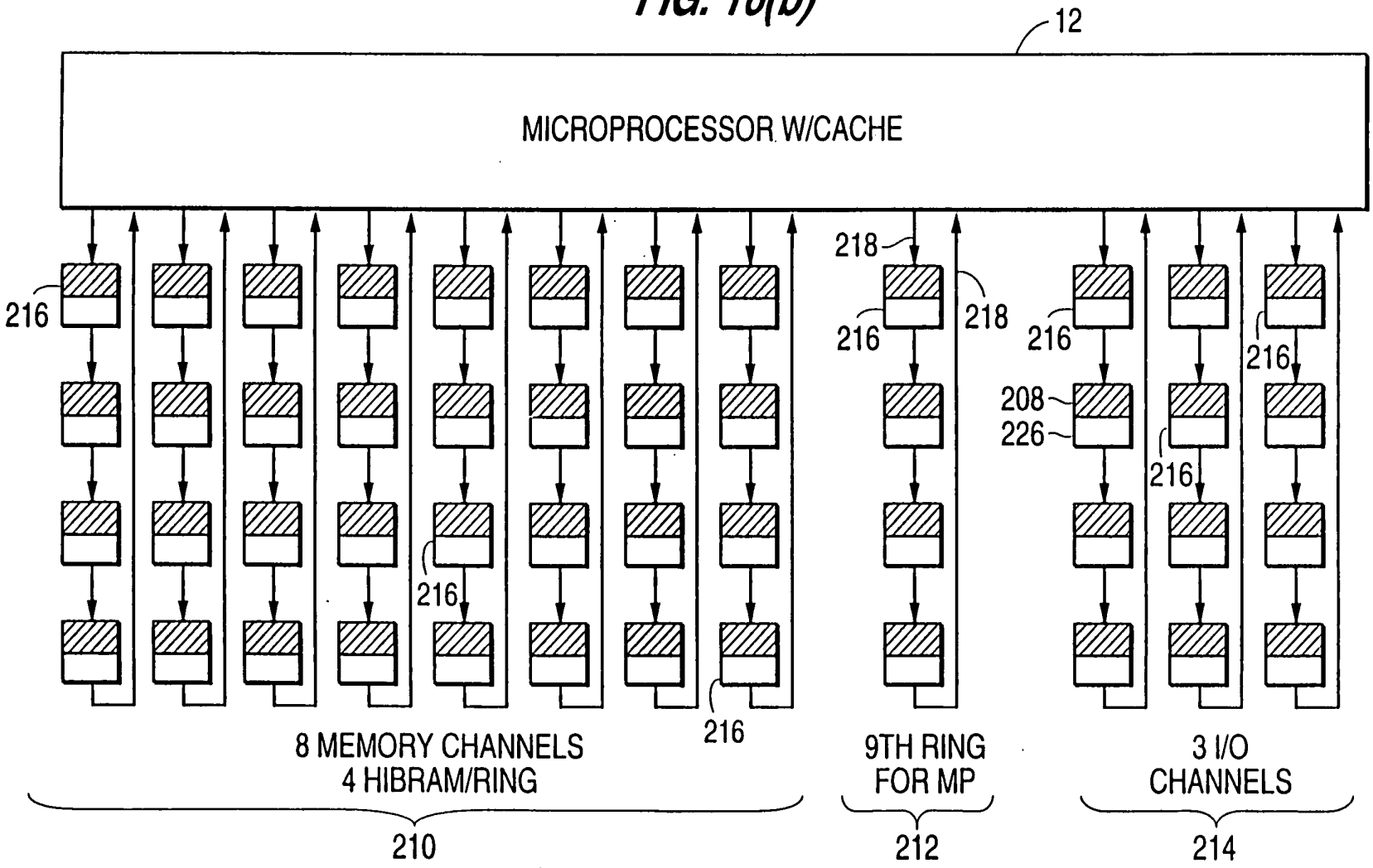


FIG. 16(a)

FIG. 16(b)


12
MICROPROCESSOR W/CACHE
216
218
208
226
8 MEMORY CHANNELS
4 HIBRAM/RING
9TH RING
FOR MP
3 I/O
CHANNELS
210
212
214

APPROVED O.G. FIG.
BY
CLASS SUBCLASS
DRAFTSMAN

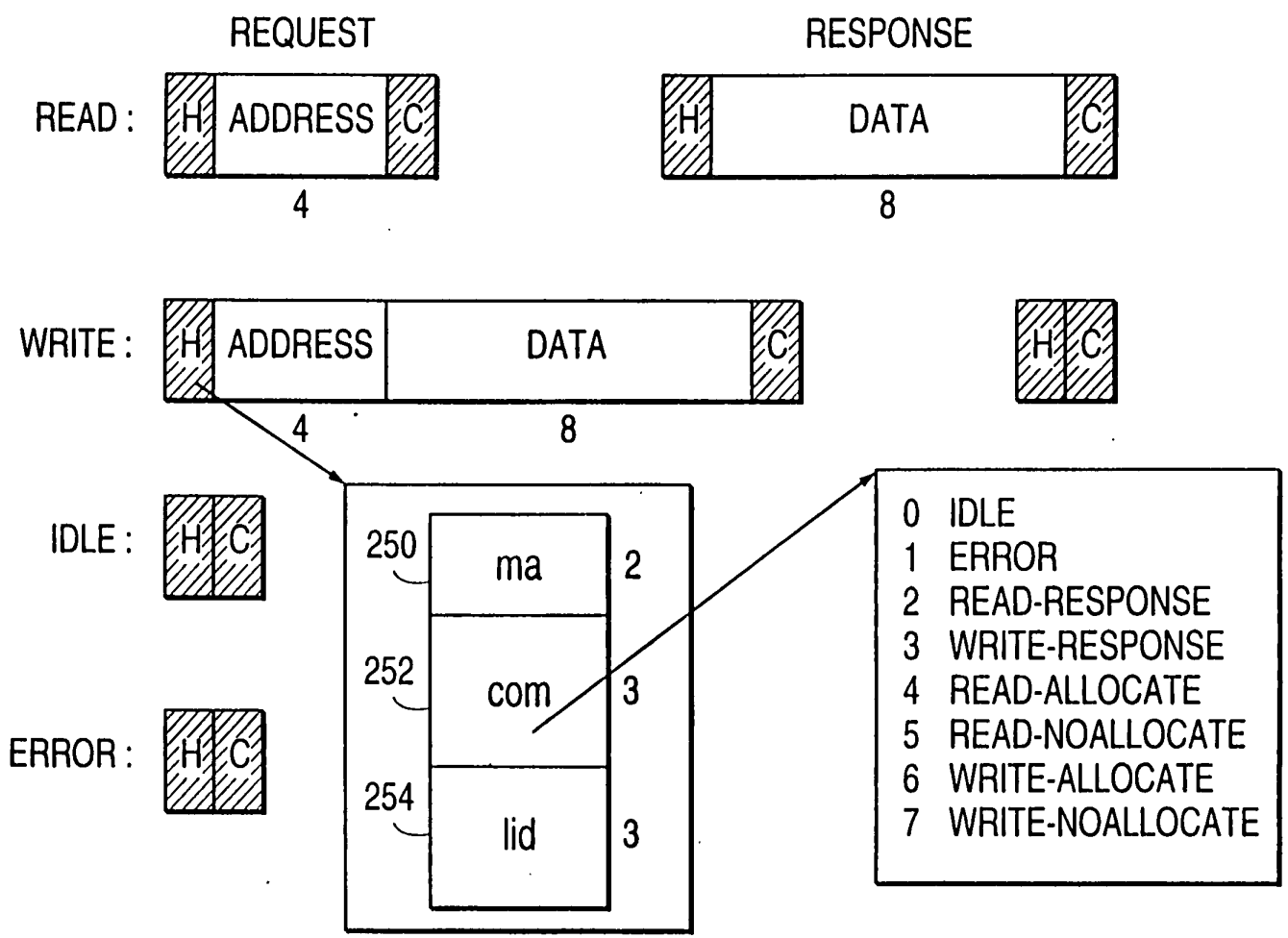


FIG. 17

APPROVED BY DRAFTSMAN | U.S. FIG. | CLASS | SUBCLASS

FIG. 18(a)

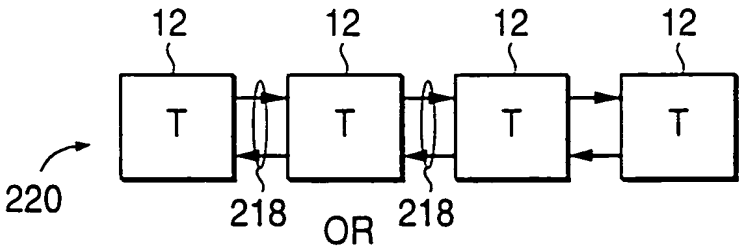


FIG. 18(b)

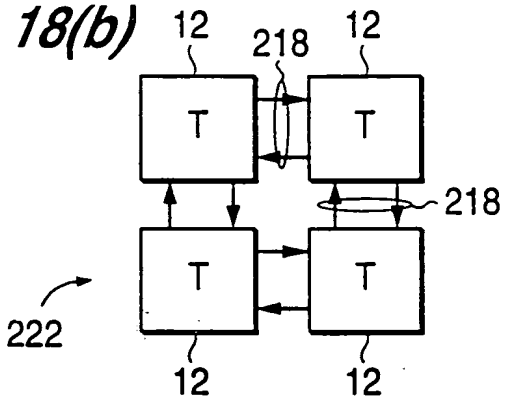


FIG. 18(c)

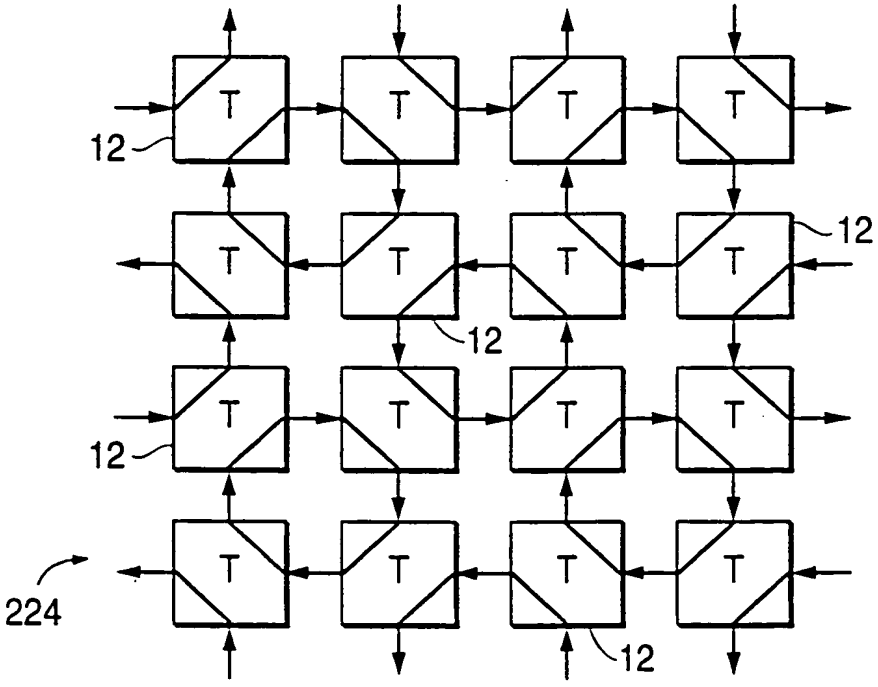
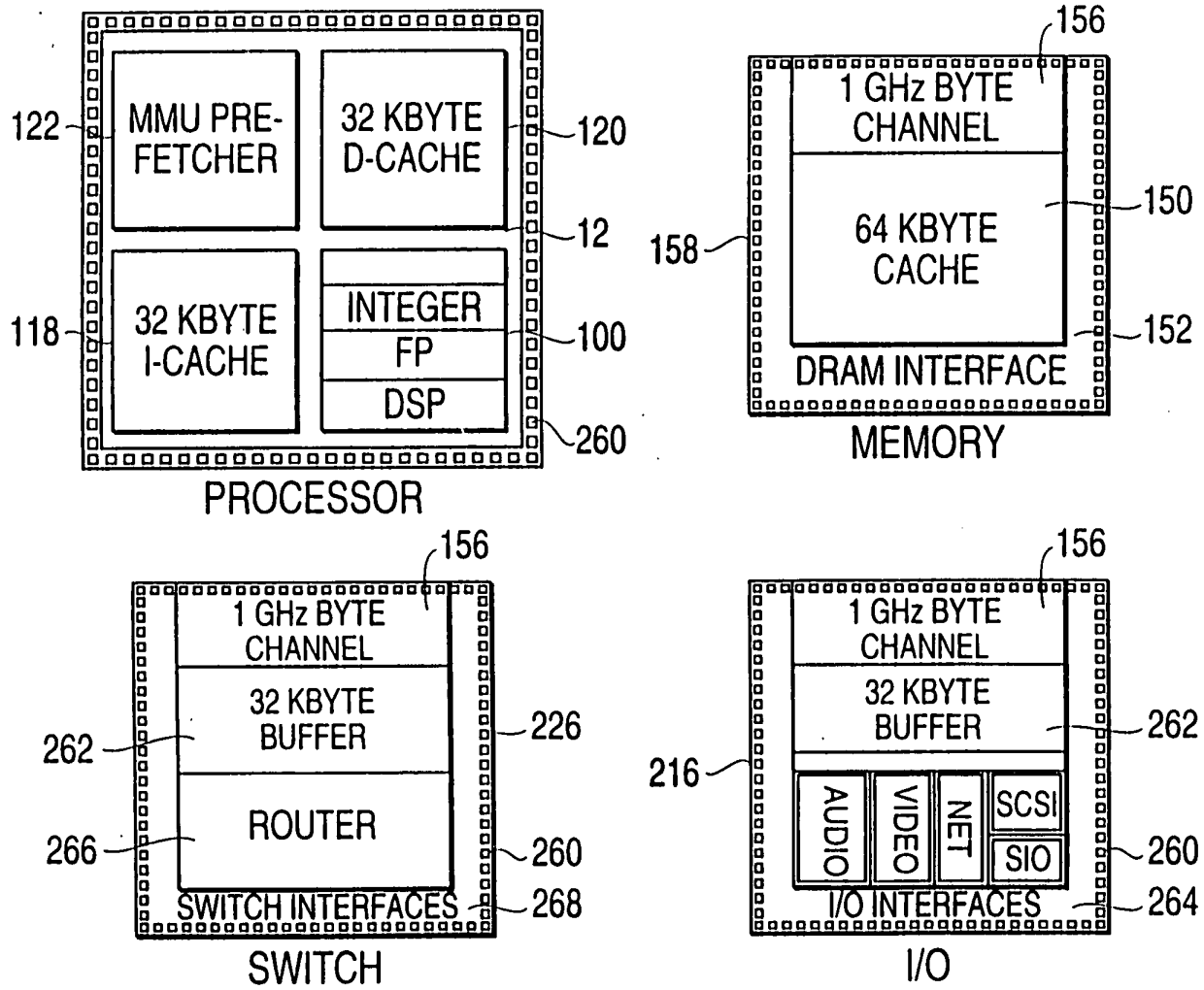


FIG. 19


122
MMU PRE-FETCHER
32 KBYTE D-CACHE
120
12
118
32 KBYTE I-CACHE
INTEGER
FP
DSP
100
260
PROCESSOR
156
1 GHz BYTE CHANNEL
150
158
64 KBYTE CACHE
152
DRAM INTERFACE
MEMORY
156
1 GHz BYTE CHANNEL
32 KBYTE BUFFER
262
226
ROUTER
266
260
SWITCH INTERFACES
268
SWITCH
156
1 GHz BYTE CHANNEL
32 KBYTE BUFFER
262
216
AUDIO
VIDEO
NET
SCSI
SIO
260
I/O INTERFACES
264
I/O